Claims What is claimed is: <u>Sub</u> à An adenovirus vector comprising an adenovirus gene under transcriptional control of a transcriptional regulatory element (TRE) comprising a cell status-specific 5 TRE. 2. The adenovirus vector of claim 1, wherein the adenovirus gene is essential for viral replication. 3. The adenovirus vector of claim 2, wherein the adenovirus gene is an early gene. 4. The adenovirus vector of claim-2, wherein the adenovirus gene is a late 10 gene. 5. The adenovirus vector of claim 3, wherein the adenovirus early gene is E1A. 6. The adenovirus vector of claim 3, wherein the adenovirus early gene is 15 E1B. The adenovirus vector of claim 3, wherein the adenovirus early gene is The adenovirus vector of claim 1, wherein the cell status-specific TRE is human 20 9. The adenovirus vector of claim 1, wherein the cell status-specific TRE

10. The adenovirus vector of claim 9, wherein the HRE comprises SEQ ID

comprises a hypoxia responsive element (HRE)

NO:1

- 11. The adenovirus vector of claim 1, wherein the cell status-specific TRE comprises a cell cycle specific element.
- 12. The adenovirus vector of claim 11, wherein the cell cycle-specific element is from the E2F-1 gene

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13. The adenovirus vector of claim 1, wherein the cell status-specific TRE comprises a heat-inducible element.

TRE.

- 64b 68 \ 14. The adenovirus vector of claim 1, further comprising a cell type-specific
  - 15. The adenovirus vector of claim 14, wherein the cell type-specific TRE is prostate cell specific.
  - 16. The adenovirus vector of claim 15, wherein the prostate cell-specific TRE is a PSA-TRE.
  - 17. The adenovirus vector of claim 1, further comprising a transgene under transcriptional control of a second cell status-specific TRE.

18. An adenovirus vector comprising an adenovirus gene under transcriptional control of a a TRE comprising a cell status-specific TRE and a cell-type specific TRE

19 The adenovirus vector of claim 18, wherein the adenovirus gene is an early gene.

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20. The adenovirus vector of claim 19, wherein the adenovirus early gene is

21. The adenovirus vector of claim 20, wherein the cell status-specific TRE comprises an HRE and the cell-type specific TRE is a PSA-TRE.

EIA

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22. The adenovirus vector of claim 21, wherein the HRE comprises SEQ ID NO:1 and the PSA-TRE comprises rucleotides about 503 to about 2086 of SEQ ID NO:3 and nucleotides about 5285 to about 5836 of SEQ ID NO:3.

23. A composition comprising an adenovirus vector of claim 1.

5 24. The composition of claim 23, further comprising a pharmaceutically acceptable excipient.

- 25. A host cell comprising the adenovirus vector of claim 1.
- 26. A method of propagating adenovirus specific for cells which allow a cell status-specific TRE to function, said method comprising combining an adenovirus according to claim 1 with the cells, whereby said adenovirus is propagated.
- 27. A method for conferring selective cytotoxicity on a target cell, said method comprising contacting a cell which allows a cell status-specific TRE to function with an adenovirus vector of claim 1, whereby the vector enters the cell.
- 28. A method for suppressing tumor growth comprising introducing the adenovirus vector of claim 1 into a tumor cell which allows a cell status-specific TRE to function, wherein introduction of the adenovirus vector results in suppression of tumor growth.

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